RAW SEQUENCE LISTING

DATE: 07/05/2001

PATENT APPLICATION: US/09/527,376

TIME: 11:13:47

Input Set : A:\407.app.txt



```
4 <110> APPLICANT: Luche, Ralf M.
         Wei, Bo
 7 <120> TITLE OF INVENTION: DSP-2 DUAL-SPECIFICITY PHOSPHATASE
10 <130> FILE REFERENCE: 200125.407
                                                               ENTERED
12 <140> CURRENT APPLICATION NUMBER: US 09/527,376
13 <141> CURRENT FILING DATE: 2000-03-16
15 <160> NUMBER OF SEQ ID NOS: 17
17 <170> SOFTWARE: FastSEQ for Windows Version 4.0
19 <210> SEO ID NO: 1
20 <211> LENGTH: 834
21 <212> TYPE: DNA
22 <213> ORGANISM: Homo sapien
24 <400> SEQUENCE: 1
                                                                           60
25 cttttcctgt atttttttgc ttcattcttg gtgtttcgct gactgctgac cactgaccca
26 coqcettgat gacageacee tegtgtgeet teccagttea gtteeggeag eceteagtea
                                                                          120
27 geggeetete geagataace aaaageetgt atateageaa tggtgtggee geeaacaaca
                                                                          180
28 ageteatget gtetageaac cagateacea tggteateaa tgteteagtg gaggtagtga
                                                                          240
29 acaccttgta tgaggatatc cagtacatgc aggtacctgt ggctgactcc cctaactcac
                                                                          300
                                                                          360
30 gtctctgtga cttctttgac cctattgctg accatatcca cagcgtggag atgaagcagg
31 geogtaettt getgeactgt getgetggtg tgageegete agetgeeetg tgeetegeet
                                                                          420
32 acctcatgaa gtaccacgcc atgtccctgc tggacgccca cacgtggacc aagtcatgcc
                                                                          480
                                                                          540
33 ggcccatcat ccgacccaac agcggctttt gggagcagct catccactat gagttccaat
                                                                          600
34 tgtttggcaa gaacactgtg cacatggtca gttccccagt gggaatgatc cctgacatct
35 atgagaagga agtccgtttg atgattccac tgtgagccat cccacgagcc cctgcattgg
                                                                          660
                                                                          720
36 agtcagaggt acagatctat tgttgatctt acaccaagat ccaaacttga acattctact
                                                                         7.80
37 tttqttqata caqaaaaaa caqatqatqc cttttatqaq cacaaaaaaq agttqctgta
38 gcttttaact ttataatcca ttttttttca gattaaacta attgtgagat ggtg
                                                                          834
40 <210> SEQ ID NO: 2
41 <211> LENGTH: 188
42 <212> TYPE: PRT
43 <213> ORGANISM: Homo sapien
45 <400> SEQUENCE: 2
46 Met Thr Ala Pro Ser Cys Ala Phe Pro Val Gln Phe Arg Gln Pro Ser
47
48 Val Ser Gly Leu Ser Gln Ile Thr Lys Ser Leu Tyr Ile Ser Asn Gly
49
               20
                                   25
50 Val Ala Ala Asn Asn Lys Leu Met Leu Ser Ser Asn Gln Ile Thr Met
                               40
52 Val Ile Asn Val Ser Val Glu Val Val Asn Thr Leu Tyr Glu Asp Ile
                           55
                                               60
54 Gln Tyr Met Gln Val Pro Val Ala Asp Ser Pro Asn Ser Arg Leu Cys
                       70
                                           75
56 Asp Phe Phe Asp Pro Ile Ala Asp His Ile His Ser Val Glu Met Lys
57
                                       90
58 Gln Gly Arg Thr Leu Leu His Cys Ala Ala Gly Val Ser Arg Ser Ala
60 Ala Leu Cys Leu Ala Tyr Leu Met Lys Tyr His Ala Met Ser Leu Leu
```

**RAW SEQUENCE LISTING**PATENT APPLICATION: **US/09/527,376**DATE: 07/05/2001

TIME: 11:13:47

Input Set : A:\407.app.txt

```
115
61
                                120
62 Asp Ala His Thr Trp Thr Lys Ser Cys Arg Pro Ile Ile Arg Pro Asn
                           135
                                                140
64 Ser Gly Phe Trp Glu Gln Leu Ile His Tyr Glu Phe Gln Leu Phe Gly
                       150
                                            155
66 Lys Asn Thr Val His Met Val Ser Ser Pro Val Gly Met Ile Pro Asp
                   165
                                        170
68 Ile Tyr Glu Lys Glu Val Arg Leu Met Ile Pro Leu
               180
                                    185
71 <210> SEQ ID NO: 3
72 <211> LENGTH: 10
73 <212> TYPE: PRT
74 <213> ORGANISM: Homo sapien
76 <400> SEQUENCE: 3
77 Leu His Cys Ala Ala Gly Val Ser Arg Ser
                    5
80 <210> SEQ ID NO: 4
81 <211> LENGTH: 23
82 <212> TYPE: PRT
83 <213> ORGANISM: Homo sapien
85 <400> SEQUENCE: 4
86 Gly Arg Val Leu Val His Cys Gln Ala Gly Ile Ser Arg Ser Gly Thr
87 1
                    5
88 Asn Ile Leu Ala Tyr Leu Met
               20
91 <210> SEQ ID NO: 5
92 <211> LENGTH: 21
93 <212> TYPE: DNA
94 <213> ORGANISM: Artificial Sequence
96 <220> FEATURE:
97 <223> OTHER INFORMATION: PCR primer
99 <400> SEQUENCE: 5
                                                                             21
100 ccactgggga actgaccatg t
102 <210> SEQ ID NO: 6
103 <211> LENGTH: 20
104 <212> TYPE: DNA
105 <213> ORGANISM: Artificial Sequence
107 <220> FEATURE:
108 <223> OTHER INFORMATION: PCR primer
110 <400> SEQUENCE: 6
                                                                             20
111 gtaggcgagg cacagggcag
113 <210> SEQ ID NO: 7
114 <211> LENGTH: 20
115 <212> TYPE: DNA
116 <213> ORGANISM: Artificial Sequence
118 <220> FEATURE:
119 <223> OTHER INFORMATION: PCR primer
121 <400> SEQUENCE: 7
                                                                             20
122 cctgcttcat ctccacgctg
```

23

20

RAW SEQUENCE LISTING DATE: 07/05/2001 PATENT APPLICATION: US/09/527,376 TIME: 11:13:47

Input Set : A:\407.app.txt

Output Set: N:\CRF3\07032001\I527376.raw

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124 <210> SEQ ID NO: 8
125 <211> LENGTH: 23
126 <212> TYPE: DNA
127 <213> ORGANISM: Artificial Sequence
129 <220> FEATURE:
130 <223> OTHER INFORMATION: PCR primer
132 <400> SEQUENCE: 8
133 cctgtggctg actcccctaa ctc
135 <210> SEQ ID NO: 9
136 <211> LENGTH: 20
137 <212> TYPE: DNA
138 <213> ORGANISM: Artificial Sequence
140 <220> FEATURE:
141 <223> OTHER INFORMATION: PCR primer
143 <400> SEQUENCE: 9
144 cagcgtggag atgaagcagg
146 <210> SEQ ID NO: 10
147 <211> LENGTH: 170
148 <212> TYPE: PRT
149 <213> ORGANISM: Homo sapien
151 <400> SEQUENCE: 10
152 Ser Asp Leu Asp Arg Asp Pro Asn Ser Ala Thr Asp Ser Asp Gly Ser
154 Pro Leu Ser Asn Ser Gln Pro Ser Phe Pro Val Glu Ile Leu Pro Phe
                                  25
               20
156 Leu Tyr Leu Gly Cys Ala Lys Asp Ser Thr Asn Leu Asp Val Leu Glu
                              40
158 Glu Phe Gly Ile Lys Tyr Ile Leu Asn Val Thr Pro Asn Leu Pro Asn
                           55
160 Leu Phe Glu Asn Ala Gly Glu Phe Lys Tyr Lys Gln Ile Pro Ile Ser
162 Asp His Trp Ser Gln Asn Leu Ser Gln Phe Pro Glu Ala Ile Ser
                   85
                                      90
164 Phe Ile Asp Glu Ala Arg Gly Lys Asn Cys Gly Val Leu Val His Cys
              100
                                  105
166 Leu Ala Gly Ile Ser Arg Ser Val Thr Val Thr Val Ala Tyr Leu Met
167 115
                              120
168 Gln Lys Leu Asn Leu Ser Met Asn Asp Ala Tyr Asp Ile Val Lys Met
    130 135
                                              140
170 Lys Lys Ser Asn Ile Ser Pro Asn Phe Asn Phe Met Gly Gln Leu Leu
171 145 150
172 Asp Phe Glu Arg Thr Leu Gly Leu Ser Ser
                   165
175 <210> SEQ ID NO: 11
176 <211> LENGTH: 168
177 <212> TYPE: PRT
178 <213> ORGANISM: Homo sapien
180 <400> SEQUENCE: 11
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181 Asp Arg Glu Leu Pro Ser Ser Ala Thr Glu Ser Asp Gly Ser Pro Val

RAW SEQUENCE LISTING
PATENT APPLICATION: US/09/527,376

DATE: 07/05/2001
TIME: 11:13:47

Input Set : A:\407.app.txt

```
182 1
                                        10
183 Pro Ser Ser Gln Pro Ala Phe Pro Val Gln Ile Leu Pro Tyr Leu Tyr
                                    25
                20
185 Leu Gly Cys Ala Lys Asp Ser Thr Asn Leu Asp Val Leu Gly Lys Tyr
187 Gly Ile Lys Tyr Ile Leu Asn Val Thr Pro Asn Leu Pro Asn Ala Phe
                            55
189 Glu His Gly Gly Glu Phe Thr Tyr Lys Gln Ile Pro Ile Ser Asp His
                                            75
191 Trp Ser Gln Asn Leu Ser Gln Phe Phe Pro Glu Ala Ile Ser Phe Ile
                                        90
                    85 ,
193 Asp Glu Ala Arg Ser Lys Lys Cys Gly Val Leu Val His Cys Leu Ala
                                    105
                100
195 Gly Ile Ser Arg Ser Val Thr Val Thr Val Ala Tyr Leu Met Gln Lys
                                120
           115
197 Met Asn Leu Ser Leu Asn Asp Ala Tyr Asp Phe Val Lys Arg Lys Lys
                            135
199 Ser Asn Ile Ser Pro Asn Phe Asn Phe Met Gly Gln Leu Leu Asp Phe
200 145
                        150
                                            155
201 Glu Arg Thr Leu Gly Leu Ser Ser
                    165
202
204 <210> SEQ ID NO: 12
205 <211> LENGTH: 168
206 <212> TYPE: PRT
207 <213> ORGANISM: Homo sapien
209 <400> SEQUENCE: 12
210 Pro Ala Gln Ala Leu Pro Pro Ala Gly Ala Glu Asn Ser Asn Ser Asp
211 1
212 Pro Arg Val Pro Ile Tyr Asp Gln Gly Gly Pro Val Glu Ile Leu Pro
                                    25
214 Tyr Leu Tyr Leu Gly Ser Cys Asn His Ser Ser Asp Leu Gln Gly Leu
216 Gln Ala Cys Gly Ile Thr Ala Val Leu Asn Val Ser Ala Ser Cys Pro
218 Asn His Phe Glu Gly Leu Phe His Tyr Lys Ser Ile Pro Val Glu Asp
219 65
                                            75
                        70
220 Asn Gln Met Val Glu Ile Ser Ala Trp Phe Gln Glu Ala Ile Ser Phe
                    85
                                        90
222 Ile Asp Ser Val Lys Asn Ser Gly Gly Arg Val Leu Val His Cys Gln
                                    105
                100
224 Ala Gly Ile Ser Arg Ser Ala Thr Ile Cys Leu Ala Tyr Leu Ile Gln
                                120
226 Ser His Arg Val Arg Leu Asp Glu Ala Phe Asp Phe Val Lys Gln Arg
                           135
                                                140
228 Arg Gly Val Ile Ser Pro Asn Phe Ser Phe Met Gly Gln Leu Leu Gln
                        150
230 Leu Glu Thr Gln Val Leu Cys His
233 <210> SEQ ID NO: 13
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RAW SEQUENCE LISTING DATE: 07/05/2001 PATENT APPLICATION: US/09/527,376 TIME: 11:13:47

Input Set : A:\407.app.txt

```
234 <211> LENGTH: 169
235 <212> TYPE: PRT
236 <213> ORGANISM: Homo sapien
238 <400> SEQUENCE: 13
239 Pro Leu Ser Thr Ser Val Pro Asp Ser Ala Glu Ser Gly Cys Ser Ser
240 1
                    5
241 Cys Ser Thr Pro Leu Tyr Asp Gln Gly Gly Pro Val Glu Ile Leu Pro
243 Phe Leu Tyr Leu Gly Ser Ala Tyr His Ala Ser Arg Lys Asp Met Leu
245 Asp Ala Leu Gly Ile Thr Ala Leu Ile Asn Val Ser Ala Asn Cys Pro
247 Asn His Phe Glu Gly His Tyr Gln Tyr Lys Ser Ile Pro Val Glu Asp
                        70
                                            75
249 Asn His Lys Ala Asp Ile Ser Ser Trp Phe Asn Glu Ala Ile Asp Phe
                    85
                                        90
251 Ile Asp Ser Ile Lys Asn Ala Gly Gly Arg Val Phe Val His Cys Gln
                                    105
253 Ala Gly Ile Ser Arg Ser Ala Thr Ile Cys Leu Ala Tyr Leu Met Arg
                                120
255 Thr Asn Arg Val Lys Leu Asp Glu Ala Phe Glu Phe Val Lys Gln Arg
                           135
                                                140
257 Arg Ser Ile Ile Ser Pro Asn Phe Ser Phe Met Gly Gln Leu Leu Gln
                       150
                                            155
259 Phe Glu Ser Gln Val Leu Ala Pro His
260
                    165
262 <210> SEQ ID NO: 14
263 <211> LENGTH: 169
264 <212> TYPE: PRT
265 <213> ORGANISM: Homo sapien
267 <400> SEQUENCE: 14
268 Pro Val Pro Pro Ser Ala Thr Glu Pro Leu Asp Leu Gly Cys Ser Ser
270 Cys Gly Thr Pro Leu His Asp Gln Gly Gly Pro Val Glu Ile Leu Pro
272 Phe Leu Tyr Leu Gly Ser Ala Tyr His Ala Ala Arg Arg Asp Met Leu
                                40
274 Asp Ala Leu Gly Ile Thr Ala Leu Leu Asn Val Ser Ser Asp Cys Pro
                            55
276 Asn His Phe Glu Gly His Tyr Gln Tyr Lys Cys Ile Pro Val Glu Asp
                        70
278 Asn His Lys Ala Asp Ile Ser Ser Trp Phe Met Glu Ala Ile Glu Tyr
                                        90
                    85
280 Ile Asp Ala Val Lys Asp Cys Arg Gly Arg Val Leu Val His Cys Gln
                                    105
282 Ala Gly Ile Ser Arg Ser Ala Thr Ile Cys Leu Ala Tyr Leu Met Met
                                120
           115
284 Lys Lys Arg Val Arg Leu Glu Glu Ala Phe Glu Phe Val Lys Gln Arg
```

VERIFICATION SUMMARY

PATENT APPLICATION: US/09/527,376

DATE: 07/05/2001

TIME: 11:13:48

Input Set : A:\407.app.txt
Output Set: N:\CRF3\07032001\I527376.raw